

*Observations of Mars and ι Aquarii near their conjunction on
1892 November 4. By John Tebbutt.*

The actual conjunction of *Mars* and *ι Aquarii* occurred rather too early for observation in this meridian, but it was quite obvious that an occultation could not have taken place. The star is No. 163 of Herr Berberich's list in No. 3,073 of the *Astronomische Nachrichten*. Two sets of ten fairly good comparisons were obtained of the planet and star with the filar micrometer of the 8-inch equatoreal. In all twenty comparisons the planet's preceding limb was observed for right ascension, but in the first set the north and in the second the south limb was observed for declination. The following are the results, the corrections for chronometer rate and refraction being insensible. The star's mean place is derived from the Greenwich Catalogues for 1872 and 1880, the result from each catalogue being weighted according to the number of individual observations on which it is founded.

	First Set.			Second Set.		
	h	m	s	h	m	s
Windsor mean time of transit of Planet's limb	8	1	57.1	8	15	45.6
Star's adopted mean R.A. for 1892.0 ...	22	0	36.21	22	0	36.21
Reduction ...			+2.46			+2.46
Observed Diff. R.A. of Limb and Star ...			+7.90			+8.97
Correction for Semidiameter ...			+0.50			+0.50
Correction for Parallax ...			+0.16			+0.20
Resulting Geocentric R.A. of Planet's centre ...	22	0	47.23	22	0	48.34
Geocentric R.A. of Centre from <i>Nautical Almanac</i> ...	22	0	47.23	22	0	48.41
Observation— <i>Nautical Almanac</i> ...			0.00			-0.07
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Star's adopted Mean Declination for 1892.0	-14	23	35.9	-14	23	35.9
Reduction ...			+8.2			+8.2
Observed Diff. Declination of Limb and Star ...			-1.1			-5.7
Correction for Semidiameter ...			-7.2			+7.2
Correction for Parallax ...			-3.8			-3.8
Resulting Geocentric Declination of Planet's centre ...	-14	23	39.8	-14	23	30.0
Geocentric Declination of Centre from <i>Nautical Almanac</i> ...	-14	23	38.7	-14	23	30.7
Observation— <i>Nautical Almanac</i> ...			-1.1			+0

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The Occultation of Jupiter, 1893 February 20.
By C. Leeson Prince.

The weather was most unfavourable for observing this phenomenon, but through breaks in the clouds I was able to watch the gradual approach of the Moon towards the planet. Observation of first contact was prevented by a large mass of cloud, and when this cleared off the planet was very nearly occulted; but I was able to see the final disappearance, which happened at $0^h 33^m 31^s$, L.S.T., but upwards of 14 minutes later than the time given in the *Nautical Almanac*. The atmosphere was in a too tremulous condition to observe whether there was any distortion of the planet's limb or any shaded line upon it.

I had no further opportunity for observation until $1^h 45^m 15^s$, when the following limb of the planet was $8^m 30^s$ west of the Moon. I consider my new observatory to be 39 seconds east of Greenwich. Telescope is of 6.8 inches' aperture and 12-feet focal length. Power 80.

The Observatory, Crowborough, Sussex:
1893 February.